

WHAT IS CLAIMED IS:

1. An ink jet recording head comprising:

a flat substrate having an end face and front and
back flat main surfaces having a larger area as compared
5 to the end face,

an energy generating member for generating energy
to be utilized to discharge the ink from a discharge port
formed on the front flat main surface side of the
substrate,

10 a wiring electrode connected to the energy
generating member formed on the front flat main surface
of the substrate, and

a connection electrode, connected to the wiring
electrode, for receiving an electrical signal supplied
15 from the outside of the substrate,

wherein the connection electrode is provided on
another surface different from the front and back flat
main surfaces of the substrate.

20 2. The ink jet recording head according to claim
1, wherein the substrate is made of a single crystal Si
material; and the surface of the Si material is
insulating and the other surface thereof is formed by
anisotropic etching.

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3. The ink jet recording head according to claim
2, wherein the substrate is thin in a stepwise form in

the vicinity of the end face.

4. The ink jet recording head according to claim
3, wherein the other surface is a plane parallel with the
5 front flat main surface of the substrate.

5. The ink jet recording head according to claim
2, wherein the other surface is a plane inclined at an
angle of about 54° to the front flat main surface of the
10 substrate.

6. The ink jet recording head according to claim
1, wherein the other surface is a flat end face having an
angle of about 90° to the front flat main surface of the
15 substrate.

7. The ink jet recording head according to claim
1, wherein the energy generating member is an
electrothermal converting element for generating thermal
20 energy.

8. The ink jet recording head according to claim
1, wherein the discharge port is disposed so as to face
the energy generating member.

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9. An ink jet recording apparatus comprising:
an ink jet recording head having:

a flat substrate having an end face and front and back flat main surfaces having a larger area as compared to the end face,

an energy generating member for generating energy
5 to be utilized to discharge the ink from a discharge port formed on the front flat main surface side of the substrate,

a wiring electrode connected to the energy generating member formed on the front flat main surface
10 of the substrate, and

a connection electrode, connected to the wiring electrode, for receiving an electrical signal supplied from the outside of the substrate, the connection electrode being provided on another surface different
15 from the front and back flat main surfaces of the substrate; and

a member on which the ink jet recording head is mounted.